

FORM PTO-1449  
(Modified)U.S. Department of Commerce  
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Attorney Docket No.: UCSD-07052

Serial No.: 09/667,335

**INFORMATION DISCLOSURE STATEMENT BY APPLICANT**  
(Use Several Sheets If Necessary)Applicant: Marcos Intaglietta *et al.*

(37 CFR § 1.98(b))

Filing Date: 09/21/2000

Group Art Unit:

## U.S. PATENT DOCUMENTS

Examiner Initials	Cite No.	Serial / Patent Number	Issue Date	Applicant / Patentee	Class	Subclass	Filing Date
<i>[Signature]</i>	1	5,814,601	9/29/98	Winslow <i>et al.</i>			
	2	5,057,313	10/15/91	Shin <i>et al.</i>			
	3	5,985,825	11/16/99	Winslow <i>et al.</i>			
<i>[Signature]</i>	4	6,054,427	4/25/00	Winslow			

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## OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)

<i>[Signature]</i>	5	Frangos <i>et al.</i> (1985) Flow Effects on Prostacyclin Production by Cultured Human Endothelial Cells," Science 227:1477-1479
	6	de Wit <i>et al.</i> (1997) "Elevation of plasma viscosity induces sustained NO-mediated dilation in the hamster cremaster microcirculation in vivo," Phyugers Arch. 434-354-361
	7	Malek (1999) "Induction of Nitric Oxide Synthase mRNA by Shear Stress Requires Intracellular Calcium and G-protein Signals and Is Modulated by PI 3 Kinase," Biochem. Biophys. Res. Comm. 254:231-242
	8	Dimmeler (1998) "Fluid Shear Stress Stimulates Phosphorylation of Akt in Human Endothelial Cells," Circ. Res. 83:334-341
	9	Deb <i>et al.</i> (1999) "Resuscitation with Lactated Ringer's Solution in Rats with Hemorrhagic Shock Induces Immediate Apoptosis," J. Trauma 46:582-589
	10	Richardson and Guyton (1959) "Effects of polycythemia and anemia on cardiac output and other circulatory factors," Am. J. Physiol. 197:1167-1170
	11	Messmer (1975) "Hemodilution" Surg. Clins N. Am. 55:659-78
	12	Mirhashemi <i>et al.</i> (1987) "Microcirculatory effects of normovolemic hemodilution in skeletal muscle," Int. J. Microcirc.: Clin.Exp. 6:359-369
	13	Johnson (1986) "Autoregulation of Blood Flow," Circ. Res. 59:483-495
	14	Lindbom and Arfors (1980) "Influence of Oxygen on Perfused Capillary Density and Capillary Red Cell Velocity in Rabbit Skeletal Muscle," Microvasc. Res. 19:197-208
	15	Tsai <i>et al.</i> (1998) "Plasma viscosity regulates capillary perfusion during extreme hemodilution in hamster skinfold model," Am. J. Physiol. 275:H2170-H2180
	16	Kerger <i>et al.</i> (1996) "Systemic and subcutaneous microvascular PO <sub>2</sub> dissociation during 4-h hemorrhagic shock in conscious hamsters," Am. J. Physiol. 279:H827-H836
	17	Schmid Schönbein & Sweifach (1975) "RBC Velocity Profiles in Arterioles and Venules of the Rabbit Omentum," Microvasc Res. 10:153-164
	18	Fung <i>et al.</i> (1970) "Elastic Environment of the Capillary Bed," Circ. Res. 19:441-461
	19	Intaglietta & dePlomb (1973) "Fluid Exchange in Tunnel and Tube Capillaries," Microvasc. Res. 6:153-168
	20	Secomb <i>et al.</i> (1987) "Effects of Reduced Perfusion and Hematocrit on Flow Distribution in Capillary Networks," Prog. Appl. Microcirc. 12:205-211
	21	Mazzoni <i>et al.</i> (1990) "The Efficacy of Iso- and Hyperosmotic Fluids as Volume Expanders in Fixed-Volume and Uncontrolled Hemorrhage," Ann. Emerg. Med. 19:350-358
	22	Tsai <i>et al.</i> (1991) "Spatial distribution of red blood cells in individual skeletal muscle capillaries during extreme hemodilution," Int. J. Microcirc.: Clin. Exp. 10:317-334
	23	Waschke <i>et al.</i> (1994) "Lack of Dependence of Cerebral Blood Flow on Blood Viscosity After Blood Exchange with a Newtonian O <sub>2</sub> Carrier," J. Cerebral Blood Flow and Metab. 14:871-876
	24	Krieter <i>et al.</i> (1995) "Does colloid-induced plasma hyperviscosity in haemodilution jeopardize perfusion and oxygenation of vital organs?" Acta Anaest. Scand. 39:236-244
<i>[Signature]</i>	25	Hermann <i>et al.</i> (1997) "Shear Stress Inhibits H <sub>2</sub> O <sub>2</sub> -Induced Apoptosis of Human Endothelial Cells by Modulation of the Glutathione Redox Cycle and Nitric Oxide Synthase," Arterioscler. Thromb. Vasc. Biol. 17:3588-3592

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**OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)**

- |    |   |
|----|---|
| 26 | Dimmeler <i>et al.</i> (1999) "Upregulation of Superoxide Dismutase and Nitric Oxide Synthase Mediates the Apoptosis-Suppressive Effects of Shear Stress on Endothelial Cells," <i>Arterioscler. Thromb. Vasc. Biol.</i> 19:656-664                 |
| 27 | Xie <i>et al.</i> (1996) "Role of Endothelium-Derived Nitric Oxide in the Modulation of Canine Myocardial Mitochondrial Respiration In Vitro," <i>Circ. Res.</i> 79:381-387   |
| 28 | Intaglietta and Zweifach (1973) "Microcirculatory Basis of Fluid Exchange," <i>Advances in Biol. and Med. Phys.</i> 15:111-159  |
| 29 | Kanzow <i>et al.</i> (1982) "Analysis of the hematocrit distribution in the mesenteric microcirculation," <i>Intl. J. Microcirc. Clin. Exp.</i> 1:67-79   |
| 30 | Klitzman and Johnson (1982) "Capillary network geometry and red cell distribution in hamster cremaster muscle," <i>Am. J. Physiol.</i> 242:H211-H219  |
| 31 | Lipowsky <i>et al.</i> (1980) "In vivo measurements of hematocrit and apparent viscosity in the microvasculature of cat mesentery," <i>Microvasc. Res.</i> 29:297-319   |
| 32 | Lipowsky, "Mechanics of Blood Flow in the Microcirculation," Chapter 18, in <i>Handbook of Bioengineering</i> , Skalak and Chien, eds., McGraw-Hill Book Co., NY, 1987  |
| 33 | Sarelius and Duling (1982) "Direct measurement of microvessel hematocrit, red cell flux, velocity and transit time," <i>Am. J. Physiol.</i> 243:H1018-H1026   |
| 34 | Intaglietta <i>et al.</i> (1975) "Capillary Flow Velocity Measurements In Vivo and In Situ by Television Methods," <i>Microvasc. Res.</i> 10:165-179  |
| 35 | Messmer <i>et al.</i> (1972) "Circulatory Significance of Hemodilution: Rheological Changes and Limitations," <i>Adv. Microcirc.</i> 4:1-77   |
| 36 | Lipowsky and Firrell (1986) "Microvascular hemodynamics during systemic hemodilution and hemoconcentration," <i>Am. J. Physiol.</i> 250:H908-H922   |
| 37 | Mirhashemi <i>et al.</i> (1988) "Effects of hemodilution on skin microcirculation," <i>Am. J. Physiol.</i> 254:H411-H416  |
| 38 | Tigno and Henrich (1986) "Flow Characteristics of the Microcirculation Following Intentional Hemodilution," <i>Acta. Med. Phil.</i> 22:5-12   |
| 39 | Tigno and Henrich (1986) "Flow Characteristics of the Microcirculation Following Intentional Hemodilution, Part II. Hemodynamic response of the pre-capillary arterioles," <i>Acta. Med. Phil.</i> 22:53-58   |
| 40 | Gustafsson <i>et al.</i> (1981) "Effects of increased plasma viscosity and red blood cell aggregation on blood viscosity in vivo," <i>Am. J. Physiol.</i> 241:H513-H518   |
| 41 | Barbee and Cokelet (1971) "The Fahraeus Effect," <i>Microvasc. Res.</i> 3:6-16  |
| 42 | Buga <i>et al.</i> (1991) "Shear Stress-Induced Release of Nitric Oxide From Endothelial Cells Grown on Beads," <i>Hypertension</i> 17:187-193  |
| 43 | Colantuoni <i>et al.</i> (1984) "Quantitation of rhythmic diameter changes in arterial microcirculation," <i>Am. J. Physiol.</i> 246:H508-H517  |
| 44 | Neumann <i>et al.</i> (1980) "A New Highly Potent and Short-acting Analgesic, Carfentanyl (R33799), in Combination with the Hypnotic Agent, Etomidat (R26490), as a Method of Anaesthesia in Guinea Pigs," <i>Res. Exp. Med. (Berl)</i> 177:135-143 |
| 45 | Lipowsky and Zweifach (1978) "Application of the "Two-Slit" Photometric Technique to the Measurement of Microvascular Volumetric Flow Rates," <i>Microvasc. Res.</i> 15:93-101  |
| 46 | Filho <i>et al.</i> (1993) "Microvessel PO <sub>2</sub> measurements by phosphorescence decay method," <i>Am. J. Physiol.</i> 34:H1434-H1438  |
| 47 | Wilson (1993) "Measuring Oxygen Using Oxygen Dependent Quenching of Phosphorescence: A Status Report," <i>Adv. Med. Biol.</i> 333:225-232   |
| 48 | Vanderkooi <i>et al.</i> (1987) "An Optical Method for Measurement of Dioxygen Concentration Based upon Quenching of Phosphorescence," <i>J. Biol. Chem.</i> 262:5476-5482  |
| 49 | Chien and Jan (1973) "Red Cell Aggregation by Macromolecules: Roles of Surface Adsorption and Electrostatic Repulsion," <i>J. Supramol. Struct.</i> 12:385-409  |
| 50 | Gelin (1956) "Studies in Anemia of Injury," <i>Acta Chir. Scand. Suppl.</i> 210:1-130   |

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OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)					
51	Kroemer <i>et al.</i> (1987) "Haemodilution Therapy in Ischaemic Stroke: Plasma Concentrations and Plasma Viscosity During Long-Term Infusion of Dextran 40 or Hydroxyethyl Starch 200/0.5," Euro J. Clin. Pharm. 31:705-710				
52	Bruckner <i>et al.</i> (1993) "Organ Blood Supply and Tissue Oxygenation after Limited Normovolemic Hemodilution with 3% versus 6% Dextran-60," Infusionstherapie und Transfusionmedizin 20:130-139				
53	Schmidt <i>et al.</i> (1993) "Hyperoncotic Ultrahigh Molecular Weight Dextran Solutions Reduce Trypsinogen Activation, Prevent Acinar Necrosis, and Lower Mortality in Rodent Pancreatitis," Am. J. Surg. 165:40-45				
54	Chen <i>et al.</i> (1989) "Effects of dextran-induced hyperviscosity on regional blood flow and hemodynamics in dogs," Am. J. Physiol. 256:H898-H905				
55	Doss <i>et al.</i> (1995) "Mechanism of Systemic Vasodilation During Normovolemic Hemodilution," Anesthesia and Analgesia 81:30-34				
56	Intaglietta (1997) "Whitaker Lecture 1996: Microcirculation, Biomedical Engineering, and Artificial Blood," Ann. Biomed. Eng. 25:593-603				
57	Smieško and Johnson (1993) "The Arterial Lumen Is Controlled by Flow-Related Shear Stress," NIPS 8:34-38				
58	Kuo and Pittman (1988) "Effect of hemodilution on oxygen transport in arteriolar networks of hamster striated muscle," Am. J. Physiol. 254:H331-H339				
59	Hudak <i>et al.</i> (1989) "Hemodilution causes size-dependent constriction of pial arterioles in the cat," Am. J. Physiol. 257:H912-H917				
60	Colantuoni <i>et al.</i> (1984) "Effects of anaesthesia on the spontaneous activity of the microvasculature," Int. J. Microcirc. Clin. Exp. 3:13-28				
61	Funk and Baldinger (1995) "Microcirculatory Perfusion during Volume Therapy," Anesthesiology 82:975-982				
62	Nolte <i>et al.</i> (1997) "Effects of diaspirin-cross-linked hemoglobin (DCLHb™) on local tissue oxygen tension in striated skin muscle: An efficacy study in the hamster," J. Lab. Clin. Med. 130:328-338				
63	Hint (1968) "The pharmacology of dextran and the physiological background for the clinical use of Rheomacrodex and Macrodex," Acta Anaes. Begl. 19:119-138				
64	Mirhashemi <i>et al.</i> (1987) "Tissue perfusion during normovolemic hemodilution investigated by a hydraulic model of the cardiovascular system," Int. J. Microcirc. Clin. Exp. 6:123-136				
65	Jackson and Duling (1983) "The Oxygen Sensitivity of Hamster Cheek Pouch Arterioles," Circ. Res. 53:515-525				
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<b>EXAMINER:</b> Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.					